

REMARKS

Claims 1-18 are pending in this application. Claim 1 is the sole independent claims. Reconsideration and allowance of the present application are respectfully requested.

Claim Rejections Under 35 U.S.C. § 103

Claims 1-4, 7 and 12-18 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 7,158,784 to Majidi-Ahy (hereinafter “Majidi-Ahy”) in view of U.S. Patent No. 6,728,514 to Bandeira et al. (hereinafter “Bandeira”). This rejection is respectfully traversed.

Claim 1, upon which claims 2-18 depend, recites “a mesh access network, comprising: at least one base-station comprising a plurality of sectors; each sector comprising of a plurality of terminal nodes, said terminal nodes comprising both indoor terminal nodes and outdoor terminal nodes, and comprising a plurality of outdoor repeaters; wherein said nodes in each sector are arranged in a tree structure starting from said base-section; wherein said base-station sectors use different frequency bands that are located in alternate sectors of said base-station; and a module for interference management and sector reuse comprising network management of frequency, time, and directionality.”

As outlined below, Majidi-Ahy and Bandeira do not teach or suggest the combination of elements recited in claims 1-4, 7 and 12-18.

Majidi-Ahy discloses a system for including a communication cell having a base station controller and at least one set of customer premises equipment. The customer premises equipment is disposed within a sector of the cell, and communication between the base station controller and the customer premises equipment is controlled by the base station controller is so as to prevent interference between multiple sets of customer premises equipment. When customer premises equipment is subject to relatively larger amounts of interference or noise, one or more access points are disposed within the sector, so as to propagate or route communication between the base station controller and one or more sets of customer premises equipment. The access points may range in complexity from simple reflectors, to repeaters, to routing devices operative within the cell.

Applicants submit that the combination of Majidi-Ahy and Bandeira does not teach or suggest the combination of elements recited in claims 1-4, 7 and 12-18. Each of the pending claims, in part, recites "wherein said base-station sectors use different frequency bands that are located in alternate sectors of the base-station." Majidi-Ahy does not teach or suggest these features.

The Office Action alleged that Col. 5, lines 9-18 and Figures 1-5 of Majidi-Ahy disclose these features. On page 3, the Office Action alleged that Majidi-Ahy discusses that the system includes "cell multi-sectoring, which inherently utilizes frequency reuse schemes." Applicants note that even if as alleged in the Office Action the cell multi-sectoring utilizes frequency reuse schemes, which Applicants are not admitting or denying, there is teaching or suggestion in Majidi-Ahy that different frequency bands are located in alternate sectors of the base-station. Frequency reuse is defined as "the ability of specific channels assigned to a single zone to be used again in another zone, when there is enough distance between the two zones to prevent co-channel interference from affecting service quality." See www.braddye.com/glossary.html. The ability to reuse a frequency is not the same as locating different frequency bands in alternate sectors of the base-station, as recited in claims 1-4, 7 and 12-18.

Furthermore, Majidi-Ahy does not teach or suggest "a module for interference management and sector reuse comprising network management, frequency, time and directionality," as recited in claims 1-4, 7 and 12-18.

Bandeira does not cure any of the deficiencies of Majidi-Ahy. Therefore, Applicants respectfully request that this rejection of claims 1-4, 7 and 12-18 under 35 U.S.C. §103 be withdrawn.

Claims 5 and 6 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Majidi-Ahy in view of Bandeira, as applied to claim 1 above, and further in view of U.S. Patent No. 5,809,431 to Bustamante et al. (hereinafter "Bustamante"). This rejection is respectfully traversed.

Bustamante does not cure the deficiencies of Majidi-Ahy and Bandeira. Specifically, Bustamante does not teach or suggest "wherein said base-station sectors use different frequency bands that are located in alternate sectors of the base-station," as recited in claims 5 and 6.

Bustamante also does not teach or suggest "a module for interference management and sector reuse comprising network management, frequency, time and directionality," as recited in claims 1-4, 7 and 12-18. Therefore, Applicants respectfully request that this rejection of claims 5 and 6 under 35 U.S.C. §103 be withdrawn.

Claims 8-11 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Majidi-Ahy in view of Bandeira et al., as applied to claims 1 and 7 above, and further in view of U.S. Patent No. 6,973,312 to Ngan et al. (hereinafter "Ngan"). This rejection is respectfully traversed.

Ngan does not cure the deficiencies of Majidi-Ahy and Bandeira. Specifically, Ngan does not teach or suggest "wherein said base-station sectors use different frequency bands that are located in alternate sectors of the base-station," as recited in claims 5 and 6. Ngan also does not teach or suggest "a module for interference management and sector reuse comprising network management, frequency, time and directionality," as recited in claims 1-4, 7 and 12-18. Therefore, Applicants respectfully request that this rejection of claims 8-11 under 35 U.S.C. §103 be withdrawn.

Disclaimer

Applicants may not have presented all possible arguments or have refuted the characterizations of either the claims or the prior art as found in the Office Action. However, the lack of such arguments or refutations is not intended to act as a waiver of such arguments or as concurrence with such characterizations.

CONCLUSION

In view of the above, consideration and allowance are respectfully solicited.

In the event the Examiner believes an interview might serve in any way to advance the prosecution of this application, the undersigned is available at the telephone number noted below.

The Office is authorized to charge any necessary fees to Deposit Account No. 22-0185.

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 22-0185, under Order No. 27592-00912-US from which the undersigned is authorized to draw.

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Respectfully submitted,

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